

Application No. 09/729,882
Page 3 of 5

REMARKS

Claims 1-3 and 5-25 remain pending in the application. Claim 1, the only independent claim, has been amended herein. Claim 1 has been amended to remove the 35 U.S. C. 112, first paragraph, raised by the Examiner by incorporation of the subject matter of claim 4, which is also given in the Specification on page 4, lines 25-28 and page 9, lines 6-7. While applicants believe that the previously use phrase "without eroding", although not explicitly used, is proper and is supported by the specification; applicants delete this phrase and submit that the current amendment clarifies what is claimed. A marked-up copy of the amendment showing the changes which have been made is attached to this Response.

Claims 1-3 and 5-25 remaining in the application have been rejected under 35 U.S.C. §102(b) as being anticipated by, or, in the alternative, under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,049,978 to Bates et al. The rejection is traversed.

With regard to applicants' claim 1 as amended, Bates, column 5, lines 38, does teach the use of a metal layer and a photoresist (masks). However, in Bates the photoresist material has been completely removed prior to the etching step as described in column 5, lines 24-27 and lines 32-24. Specifically, at column 5, lines 24-27, Bates states that the unilluminated photoresist is removed. At lines 33-35, Bates describes removing the remaining photoresist material. Consequently, when the plasma etching ("predetermined dry gas" in applicants' parlance) is carried out as described by Bates in lines 35 *et seq.*, only one mask is present. Nowhere in Bates is there an indication of two masks being present during the "gas" etching step.

In contrast to Bates, in Applicant's invention both the metal layer and the photoresist are present during the etching step using a predeteremined etching gas as stated in Applicants' specification, for example, on page 4, lines 24-28, and again on 9, lines 11-12. Since Bates specifically teaches against the presence of both masks during the gas etching step, Applicants respectfully submit that claim 1, as amended, is allowable over the cited art with regard to both the anticipation and obviousness rejections. Further, Applicants respectfully submit that claims 2-3 and 5-25, all of which are directly or indirectly dependent on claim 1, are allowable for being dependent on an allowable claim.

In view of the foregoing difference between the cited art and the present invention as now claimed, Applicants respectfully submit that it is proper for the Examiner to withdraw the §102(b) and §103(a) rejections of the claimed invention and to allow the applicant to proceed to issue as a patent.

FAX RECEIVED
PAGE 5
MAY 20 2003
GROUP 1700Application No. 09/729,882
Page 4 of 5

Applicants' undersigned attorney of record requests that the Examiner call if there are any matters whose resolution will facilitate prosecution of the application.

19 May 2003
Date

<p>CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. § 1.8</p> <p>I hereby certify that this paper and any papers referred to herein are being transmitted by facsimile to the U.S. Patent and Trademark Office at 703-872-9311 on:</p> <p><u>19 May 2003</u> Date</p> <p><u>Walter M. Douglas</u> <u>19 May 2003</u> Walter M. Douglas Date</p>
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MAY 20 2003
GROUP 1700

Sheet Showing Amendment to Claims filed Herewith

1. (twice amended) A method for manufacturing an integrated optical circuit on a substrate, the substrate having a first region and a second region distinct from the first region, the method comprising the steps of:

forming a first mask on the substrate, the first mask defining a pattern corresponding to at least one optical device to be formed in the first region of the substrate;

forming a second mask on the substrate, the second mask defining a pattern corresponding to an optical structure to be formed in the second region of the substrate; and

etching the substrate having simultaneously thereon the first and second masks; ~~without eroding said first and second masks~~, in order to form at least one optical device and the optical structure on the substrate

wherein said etching comprises using a predetermined etching gas, and said first and second masks are made of a material which substantially resists the predetermined etching gas.